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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,326	07/05/2001	Carl P. Schulte	82464RLO	2611

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03/09/2005

Thomas H. Close
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EXAMINER

THOMPSON, JAMES A

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,326

Applicant(s)

SCHULTE ET AL.

Examiner

James A Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract uses legal claim language and not a narrative form. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes (US Patent 6,345,128 B1) in view of Beretta (US Patent 5,901,243).

Regarding claim 1: Stokes discloses providing a plurality of tone scale correcting transforms (figure 1(104) and column 3, lines 31-36 of Stokes), each such transform being unique to an exposure condition (column 5, lines 35-39 and lines 42-45 of Stokes) and which corrects tone scale for a digital image captured by an image capture device (column 2, lines 53-55 and lines 60-63 of Stokes) for such unique exposure conditions (column 3, lines 15-20 of Stokes) and to be printed by the printer (column 2, lines 55-59 of Stokes); applying the plurality of transforms to the digital image (figure 1(106) and column 4, lines 33-37 of Stokes) and printing (column 2, lines 55-57 of Stokes) a plurality of images corresponding to the digital image on which the transforms were applied (column 4, lines 37-39 of Stokes); and determining from the printed plurality of images the most satisfying printed image to the user (column 6, lines 7-12 of Stokes) which corresponds to a particular transform to be used to make visual images from the digital image (column 7, lines 21-27 of Stokes).

Stokes does not disclose expressly providing a plurality of exposure correcting transforms which correct exposure for the captured digital image.

Beretta discloses iteratively computing exposure and tone scale correcting transforms ("tone reproduction curves") which correct exposure for a captured digital image (column 3, lines 55-64 of Beretta).

Stokes and Beretta are combinable because they are from the same field of endeavor, namely tone correction for digital image

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data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to iteratively compute both exposure and tone scale correcting transforms, as taught by Beretta, in the method taught by Stokes. The motivation for doing so would have been that exposure is another attribute that can be adjusted to further improve the resultant image and exposure can be controlled independently of the tone reproduction (column 3, lines 1-5 of Beretta). Therefore, it would have been obvious to combine Beretta with Stokes to obtain the invention as specified in claim 1.

4. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes (US Patent 6,345,128 B1) in view of Shalit (US Patent 5,345,315) and Beretta (US Patent 5,901,243).

Regarding claim 2: Stokes discloses providing a plurality of tone scale correcting transforms (figure 1(104) and column 3, lines 31-36 of Stokes), each such transform being unique to an exposure condition (column 5, lines 35-39 and lines 42-45 of Stokes) and which corrects tone scale for a digital image captured by an image capture device (column 2, lines 53-55 and lines 60-63 of Stokes) for such unique exposure conditions (column 3, lines 15-20 of Stokes) and to be printed by the printer (column 2, lines 55-59 of Stokes); applying the plurality of transforms to the digital image (figure 1(106) and column 4, lines 33-37 of Stokes) and printing on a particular printer (column 2, lines 55-57 of Stokes) such plurality of visual digital images corresponding to the digital image on which the transforms were applied (column 4, lines 37-39 of Stokes); and determining from the printed plurality of images the most satisfying printed image to the user (column 6, lines

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7-12 of Stokes) which corresponds to a particular transform to be used to make visual images from the digital image (column 7, lines 21-27 of Stokes).

Stokes does not disclose expressly producing a plurality of visual digital images on a display so that the user can correlate the difference between display and printed images; and providing a plurality of exposure correcting transforms which correct exposure for the captured digital image.

Shalit discloses displaying a visual digital image on a display (column 7, lines 36-41 of Shalit) so that the difference between the image on the display and the printed image can be correlated (column 7, lines 45-48 of Shalit).

Stokes and Shalit are combinable because they are from the same field of endeavor, namely tone correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display the plurality of digital images taught by Stokes on a display so that the difference between the image on the display and the printed image can be correlated, as taught by Shalit, by the user performing the overall method. The motivation for doing so would have been to ensure that the tone reproduction curve is such that the printed output is the same as the image that a user would see displayed on a monitor (column 6, lines 34-37 of Shalit). Therefore, it would have been obvious to combine Shalit with Stokes.

Stokes in view of Shalit does not disclose expressly providing a plurality of exposure correcting transforms which correct exposure for the captured digital image.

Beretta discloses iteratively computing exposure and tone scale correcting transforms ("tone reproduction curves") which

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correct exposure for a captured digital image (column 3, lines 55-64 of Beretta).

Stokes in view of Shalit is combinable with Beretta because they are from the same field of endeavor, namely tone correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to iteratively compute both exposure and tone scale correcting transforms, as taught by Beretta, in the method taught by Stokes in view of Shalit. The motivation for doing so would have been that exposure is another attribute that can be adjusted to further improve the resultant image and exposure can be controlled independently of the tone reproduction (column 3, lines 1-5 of Beretta). Therefore, it would have been obvious to combine Beretta with Stokes in view of Shalit to obtain the invention as specified in claim 2.

Regarding claim 3: Stokes discloses that the particular transform is used to make one or more printed images using the particular transform of the selected digital images (column 2, lines 55-59 of Stokes). Since the end user is the purchaser of the printing device which incorporates the selected transform (column 2, lines 55-59 of Stokes), one or more printed image are therefore made using said transform.

Regarding claim 4: Stokes discloses providing a plurality of tone scale correcting transforms (figure 1(104) and column 3, lines 31-36 of Stokes), wherein said transforms are nonlinear (column 3, lines 52-67 of Stokes), each such nonlinear transform being unique to an exposure condition (column 5, lines 35-39 and lines 42-45 of Stokes) and which corrects tone scale for a digital image captured by an image capture device (column 2, lines 53-55 and lines 60-63 of Stokes) for such unique exposure

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conditions (column 3, lines 15-20 of Stokes) and to be printed by the printer (column 2, lines 55-59 of Stokes); applying the plurality of nonlinear transforms to the digital image (figure 1 (106) and column 4, lines 33-37 of Stokes) and printing on a particular printer (column 2, lines 55-57 of Stokes) such plurality of visual digital images corresponding to the digital image on which the nonlinear transforms were applied (column 4, lines 37-39 of Stokes); and determining the most satisfying printed image to the user (column 6, lines 7-12 of Stokes) which corresponds to a particular nonlinear transform to be used to make visual images from the digital image (column 7, lines 21-27 of Stokes).

Stokes does not disclose expressly producing a plurality of visual digital images on a display so that the user can correlate the difference between display and printed images; and providing a plurality of exposure correcting transforms which correct exposure for the captured digital image.

Shalit discloses displaying a visual digital image on a display (column 7, lines 36-41 of Shalit) so that the difference between the image on the display and the printed image can be correlated (column 7, lines 45-48 of Shalit).

Stokes and Shalit are combinable because they are from the same field of endeavor, namely tone correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display the plurality of digital images taught by Stokes on a display so that the difference between the image on the display and the printed image can be correlated, as taught by Shalit, by the user performing the overall method. The motivation for doing so would have been to ensure that the tone reproduction curve is

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such that the printed output is the same as the image that a user would see displayed on a monitor (column 6, lines 34-37 of Shalit). Therefore, it would have been obvious to combine Shalit with Stokes.

Stokes in view of Shalit does not disclose expressly providing a plurality of exposure correcting transforms which correct exposure for the captured digital image.

Beretta discloses iteratively computing exposure and tone scale correcting transforms ("tone reproduction curves") which correct exposure for a captured digital image (column 3, lines 55-64 of Beretta).

Stokes in view of Shalit is combinable with Beretta because they are from the same field of endeavor, namely tone correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to iteratively compute both exposure and tone scale correcting transforms, as taught by Beretta, in the method taught by Stokes in view of Shalit, said transforms being nonlinear, as taught by Stokes. The motivation for doing so would have been that exposure is another attribute that can be adjusted to further improve the resultant image and exposure can be controlled independently of the tone reproduction (column 3, lines 1-5 of Beretta). Therefore, it would have been obvious to combine Beretta with Stokes in view of Shalit to obtain the invention as specified in claim 4.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes (US Patent 6,345,128 B1) in view of Shalit (US Patent 5,345,315), Beretta (US Patent 5,901,243), and Gilman (US Patent 5,913,014).

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Regarding claim 5: Stokes in view of Shalit and Beretta does not disclose expressly that the image capture device is a digital camera and the medium is a photographic silver halide element, ink jet receiver, or thermal print medium.

Gilman discloses an image capture device that is a digital camera (column 3, lines 11-13 of Gilman), and a medium that is a photographic silver halide element, ink jet receiver, or thermal print medium (column 3, lines 16-19 of Gilman).

Stokes in view of Shalit and Beretta is combinable with Gilman because they are from the same field of endeavor, namely digital image transforms. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use a digital camera to capture the image and either a photographic silver halide element, an ink jet receiver, or a thermal print medium as the output hard copy medium, as taught by Gilman. The suggestion for doing so would have been that a digital camera is a common device for capturing images and photographic silver halide elements, ink jet receivers, and thermal print media are common media upon which hard copies of images can be printed. Therefore, it would have been obvious to combine Gilman with Stokes in view of Shalit and Beretta to obtain the invention as specified in claim 5.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
08 February 2005



THOMAS D.
~~LEE~~ LEE
PRIMARY EXAMINER